

## **CLAIM AMENDMENTS:**

1. (currently amended) A decalcification ~~Decalcification~~ method of an aqueous solution of whey or whey permeate comprising multivalent cations  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  and anions able to form complexes with at least a part of said multivalent cations, ~~characterised in that it comprises~~ comprising the operations of: (a) ~~of~~ replacement of at least a part of said anions able to form complexes of the aqueous solution by monovalent anions ~~such as  $\text{Cl}^-$ , non-able to form such complexes,~~ the replacement operation comprising processing of said aqueous solution by a strong anionic resin of which the counter-ion is a monovalent anion non-able to form complexes with said multivalent cations, and (b) ~~of~~ replacement of at least a part of said multivalent cations of the aqueous solution by monovalent metal cations by treatment of said aqueous solution by a strong cationic resin of which the counter-ion is a monovalent metal cation, ~~such as  $\text{Na}^+$  and/or  $\text{K}^+$ , wherein~~ operation (b) ~~being~~ is performed on the aqueous solution having undergone operation (a), ~~wherein operation (a) comprises the processing of said aqueous solution by a strong anionic resin of which the counter ion is a monovalent anion non-able to form complexes with said multivalent cations, and operation (b) comprises the treatment of said aqueous solution by a strong cationic resin of which the counter-ion is a monovalent metal cation.~~

Claim 2 (canceled).

3. (currently amended) The method ~~Method~~ according to claim 1, in which said aqueous solution further comprises monovalent anions non-able to form complexes with said multivalent cations, ~~characterised in that~~ wherein said monovalent anion forming the counter-ion of the anionic resin is of the same type as the monovalent

anions contained in the aqueous solution.

4. (currently amended) The method ~~Method~~ according to claim 3, in which the aqueous solution further comprises monovalent metal cations, wherein ~~characterised in that the monovalent metal cation consisting~~ which is the counter-ion of the cationic resin is of the same type as the monovalent metal cations contained in the aqueous solution.

5. (currently amended) The method ~~Method~~ according to claim 4, ~~characterised in that it further comprises~~ comprising an operation (c) of regeneration of the anionic resin and/or the cationic resin by means of a regeneration agent.

6. (currently amended) The method ~~Method~~ according to claim 5, ~~characterised in that~~ wherein the regeneration agent is an aqueous solution comprising a dissolved salt of which the cation is of the same type as the monovalent metal cation forming the counter-ion of the cationic resin.

7. (currently amended) The method ~~Method~~ according to claim 6, ~~characterised in that~~ wherein the anion of the dissolved salt is of the same type as the monovalent anion forming the counter-ion of the anionic resin.

8. (currently amended) The method ~~Method~~ according to claim 7, ~~characterised in that~~ wherein regeneration operation (c) comprises treatment in series of the anionic resin then of the cationic resin.

9. (currently amended) The method ~~Method~~ according to claim 7, ~~characterised in that~~ wherein regeneration operation (c) comprises the treatment in parallel of the anionic resin and of the cationic resin.

10. (currently amended) The method ~~Method~~ according to claim 1 wherein the aqueous solution ~~comprising multivalent cations  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  and anions able to form complexes with at least a part of said multivalent cations is whey or a permeate from the ultrafiltration of a whey, this whey and this permeate comprising~~ comprises  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions,  $\text{Cl}^-$  anions,  $\text{Na}^+$  and  $\text{K}^+$  cations and anions selected from the group consisting of phosphate anions, anions from organic acids able to form complexes with the  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions and their mixtures.

11. (currently amended) The method ~~Method~~ according to claim 1, in which the aqueous solution further comprises monovalent metal cations, ~~characterised in that~~ wherein the monovalent metal cation ~~consisting~~ forming the counter-ion of the cationic resin is of the same type as the monovalent metal cations contained in the aqueous solution.

12. (currently amended) The method ~~Method~~ according to claim 11, ~~characterised in that it further comprises~~ comprising an operation (c) of regeneration of the anionic resin and/or the cationic resin by means of a regeneration agent.

13. (currently amended) The method ~~Method~~ according to claim 12, ~~characterised in that~~ wherein the regeneration agent is an aqueous solution comprising a dissolved salt of which the cation is of the same type as the monovalent metal cation forming the counter-ion of the cationic resin.

14. (currently amended) The method ~~Method~~ according to claim 13, ~~characterised in that~~ wherein the anion of the dissolved salt is of the same type as the monovalent anion forming the counter-ion of the anionic resin.

15. (new) A method of decalcification of an aqueous solution of whey or whey permeate comprising multivalent cations  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  and anions able to form complexes with at least a part of said multivalent cations, the method consisting essentially of first, replacing at least a part of said anions able to form complexes of the aqueous solution with monovalent anions not able to form such complexes, the first replacing step comprising processing of said aqueous solution by a strong anionic resin of which the counter-ion is a monovalent anion not able to form complexes with said multivalent cations, and second, replacing at least a part of said multivalent cations of the aqueous solution with monovalent metal cations by treatment of said aqueous solution by a strong cationic resin of which the counter-ion is a monovalent metal cation, wherein the second replacing step is performed on the aqueous solution having undergone the first replacing step.

16. (new) The method according to claim 15, in which said aqueous solution further comprises monovalent anions not able to form complexes with said multivalent cations, wherein said monovalent anion forming the counter-ion of the anionic resin is of the same type as the monovalent anions contained in the aqueous solution.

17. (new) The method according to claim 15, in which the aqueous solution further comprises monovalent metal cations, wherein the monovalent metal cation which is the counter-ion of the cationic resin is of the same type as the monovalent metal cations contained in the aqueous solution.

18. (new) The method according to claim 15, wherein the aqueous solution comprises  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions,  $\text{Cl}^-$  anions,  $\text{Na}^+$  and  $\text{K}^+$  cations and anions

selected from the group consisting of phosphate anions, anions from organic acids able to form complexes with the  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions and their mixtures.

19. (new) A method of decalcification of an aqueous solution of whey or whey permeate comprising multivalent cations  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  and anions able to form complexes with at least a part of said multivalent cations, the method consisting essentially of first, replacing at least a part of said anions able to form complexes of the aqueous solution with monovalent anions not able to form such complexes, the first replacing step comprising processing of said aqueous solution by a strong anionic resin of which the counter-ion is a monovalent anion not able to form complexes with said multivalent cations, and second, replacing at least a part of said multivalent cations of the aqueous solution with monovalent metal cations by treatment of said aqueous solution by a strong cationic resin of which the counter-ion is a monovalent metal cation, wherein the second replacing step is performed on the aqueous solution having undergone the first replacing step, and a further step comprising regenerating the anionic resin and/or the cationic resin by means of a regeneration agent.

20. (new) The method according to claim 19, wherein the aqueous solution comprises  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions,  $\text{Cl}^-$  anions,  $\text{Na}^+$  and  $\text{K}^+$  cations and anions selected from the group consisting of phosphate anions, anions from organic acids able to form complexes with the  $\text{Ca}^{2+}$  and  $\text{Mg}^{2+}$  ions and their mixtures.